

DOCKET: CU-4970

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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TITLE: LIQUID CRYSTAL DISPLAY

THE COMMISSIONER FOR PATENTS
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AMENDED CLAIMS

1-10. (cancelled)

11. (new) A liquid crystal display comprising a ferroelectric liquid crystal sandwiched between two substrates,

wherein an electrode and a photo alignment layer are each successively formed on opposite faces of the two substrates facing each other;

a constituent material of the respective photo alignment layer is a photoreactive material which generates a photoreaction to give anisotropy to the photo alignment layer; and

the constituent material of the respective photo alignment layer has a different composition from each other with the ferroelectric liquid crystal sandwiched therebetween.

12. (new) The liquid crystal display according to claim 11, wherein the photoreaction is a photo-dimerization reaction or a photo decomposition reaction.

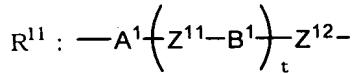
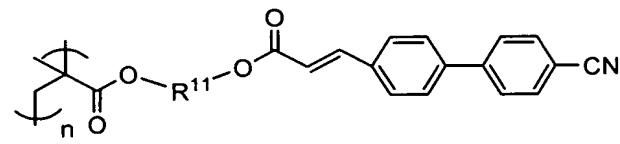
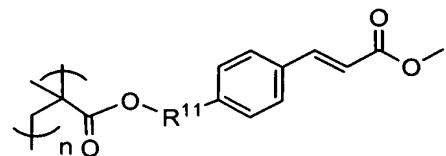
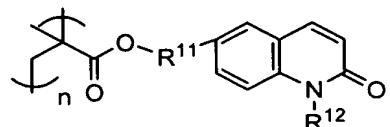
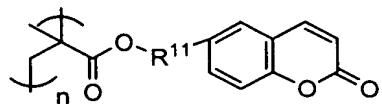
13. (new) The liquid crystal display according to claim 11, wherein the photoreactive material comprises a photo-dimerization-reactive compound having a radical-polymerizable functional group and dichroism that different absorptivities are exhibited depending on a polarization direction thereof.

14. (new) The liquid crystal display according to claim 12, wherein the photoreactive material comprises a photo-dimerization-reactive compound having a radical-polymerizable functional group and dichroism that different absorptivities are exhibited depending on a polarization direction thereof.

15. (new) The liquid crystal display according to claim 13, wherein the photo-dimerization-reactive compound is a dimerization-reactive polymer containing, as its side chain, any one of cinnamic acid ester, coumalin, and quinoline.

16. (new) The liquid crystal display according to claim 14, wherein the photo-dimerization-reactive compound is a dimerization-reactive polymer containing, as its side chain, any one of cinnamic acid ester, coumalin, and quinoline.

17. (new) The liquid crystal display according to claim 13, wherein the photo-dimerization-reactive compound is at least one selected from dimerization-reactive polymers represented by the following formulae:



in which A^1 and B^1 : 1,4-phenylene, a covalent single bond, pyridine-2,5-diyl, pyrimidine-2,5-diyl, 1,4-cyclohexylene or 1,3-dioxane-2,5-diyl;

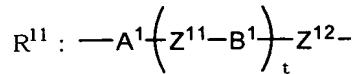
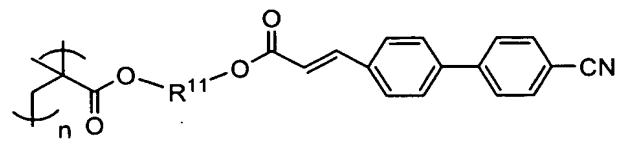
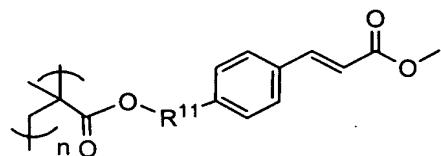
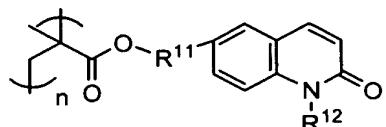
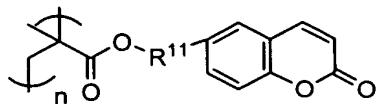
Z^{11} and Z^{12} : $-\text{CH}_2\text{--CH}_2-$, $-\text{COO}-$, $-\text{OOC}-$, or a covalent single bond;

t : an integer of 0 to 4;

R^{12} : a lower alkyl; and

n : an integer of 4 to 30,000.

18. (new) The liquid crystal display according to claim 15, wherein the photo-dimerization-reactive compound is at least one selected from dimerization-reactive polymers represented by the following formulae:



in which A^1 and B^1 : 1,4-phenylene, a covalent single bond, pyridine-2,5-diyl, pyrimidine-2,5-diyl, 1,4-cyclohexylene or 1,3-dioxane-2,5-diyl;

Z^{11} and Z^{12} : $-\text{CH}_2\text{CH}_2-$, $-\text{COO}-$, $-\text{OOC}-$, or a covalent single bond;

t : an integer of 0 to 4;

R^{12} : a lower alkyl; and

n : an integer of 4 to 30,000.

19. (new) The liquid crystal display according to claim 11, wherein the ferroelectric liquid crystal exhibits mono-stability.

20. (new) The liquid crystal display according to claim 12, wherein the ferroelectric liquid crystal exhibits mono-stability.

21. (new) The liquid crystal display according to claim 11, wherein the ferroelectric liquid crystal is a liquid crystal having no smectic A phase in a phase series thereof.

22. (new) The liquid crystal display according to claim 12, wherein the ferroelectric liquid crystal is a liquid crystal having no smectic A phase in a phase series thereof.

23. (new) The liquid crystal display according to claim 11, wherein the ferroelectric liquid crystal is a liquid crystal which constitutes a single phase.

24. (new) The liquid crystal display according to claim 12, wherein the ferroelectric liquid crystal is a liquid crystal which constitutes a single phase.

25. (new) The liquid crystal display according to claim 11, wherein the liquid crystal display is driven by an active matrix system using a thin film transistor.

26. (new) The liquid crystal display according to claim 12, wherein the liquid crystal display is driven by an active matrix system using a thin film transistor.

27. (new) The liquid crystal display according to claim 11, wherein the liquid crystal display is displayed by a field sequential color system.

28. (new) The liquid crystal display according to claim 12, wherein the liquid crystal display is displayed by a field sequential color system.